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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/783,500 | 02/20/2004 | Hideki Hirayama | 10449-078001 | 7597 |
| 26161 | 7590 | 11/28/2006 | EXAMINER | |
| FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022 | | | BIBBINS, LATANYA | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2627 | |

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|--|---|--|--|
| <p align="center">Office Action Summary</p> | <p>Application No.</p> <p align="center">10/783,500</p> | <p>Applicant(s)</p> <p align="center">HIRAYAMA, HIDEKI</p> | |
| | <p>Examiner</p> <p align="center">LaTanya Bibbins</p> | <p>Art Unit</p> <p align="center">2627</p> | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on February 17, 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3, and 5-10 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 9 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Preliminary Amendment

2. Receipt is acknowledged of the preliminary amendments filed on January 23, 2006 and February 17, 2006. In the amendment, claims 1 and 2 were amended, claim 4 was canceled, and claims 9 and 10 were added. Currently claims 1-3, and 5-10 are pending.

Claim Objections

3. Claims 9 and 10 are objected to because of the following informalities: claims 9 and 10 recite "the second **click** signal". Replacing "the second **click** signal" with "the second **clock** signal" is suggested. Appropriate correction is required.

Citation of Relevant Prior Art

Regarding independent claim 1, none of the references of record, alone or in combination suggest or fairly teach a decoder for demodulating address information using a wobble signal wherein **the demodulator samples the wobble signal using the first clock signal until the second clock signal is synchronized with the**

wobble signal and samples the wobble signal using the second clock signal after the second clock signal is synchronized with the wobble signal.

Regarding independent claim 7, none of the references of record, alone or in combination suggest or fairly teach a decoder for demodulating address information using a wobble signal including a demodulator, connected to the digital PLL circuit, the analog PLL circuit, and the detection circuit, for sampling the wobble signal using the first clock signal to demodulate the address information when the select signal is inactive and for sampling the wobble signal using the second clock signal to demodulate the address information when the select signal is active.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chen (US Patent Number 5,675,620) teaches a PLL circuit to be used in a variety of applications. While Chen teaches a circuit with first and second PLLs having a single input coupled to both PLL circuits (Figure 1 elements 12, 14, and the CLOCK_IN input), both PLL circuits are analog.

Hase et al. (US Patent Number 5,937,020) discloses an analog PLL (Figures 3, 4, and 5 element 1) and a digital PLL (Figures 3, 4, and 5 element 3) both connected to a synchronizing clock generator (Figures 3, 4, and 5 element 2) however, contrary to applicants invention, after initial synchronization control is transferred from the analog PLL to the digital PLL.

Shimizume et al. (US Patent Number 5,636,192) also discloses both an analog PLL (Figure 4 element 110) and a digital PLL (Figure 4 element 120), however the analog PLL generates a reference clock that is supplied to the digital PLL circuit. The output of the digital PLL circuit is then supplied to a demodulator. Thus the analog and digital PLL circuits work together to generate a single clock unlike applicant's invention where the analog and digital PLLs are used independently.

Conclusion

Claims 1-3, and 5-10 are allowed.

This application is in condition for allowance except for the following formal matters: claims 9 and 10 contain minor informalities as discussed above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaTanya Bibbins whose telephone number is (571) 270-1125. The examiner can normally be reached on Monday through Friday 7:30 am - 5:00 pm.

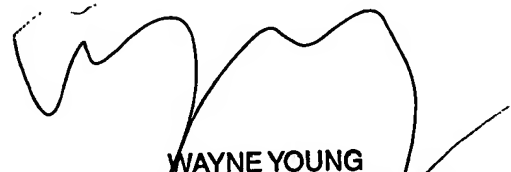
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



LaTanya Bibbins
Patent Examiner



WAYNE YOUNG
SUPERVISORY PATENT EXAMINER